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BULLETIN OF AMERICA'S TOWN MEETING OF THE AIR

BROADCAST BY STATIONS OF THE AMERICAN BROADCASTING CO.

Do We Need a New Approach to Peace?

Moderator, **GEORGE V. DENNY, Jr.**

Speakers

DOROTHY THOMPSON

RICHARD LAUTERBACH

CORD MEYER, Jr.

DAVID OWEN

(See also page 13)

COMING

February 15, 1949

Is There Any Defense Against Atomic Warfare?

February 22, 1949

Should We Adopt a Compulsory National Health Insurance Program?

Published by **THE TOWN HALL, Inc.**, New York 18, N. Y.

VOLUME 14, NUMBER 41



\$4.50 A YEAR: 10c A COPY



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The account of the meeting reported in this Bulletin was transcribed from recordings made of the actual broadcast and represents the exact content of the meeting as nearly as such mechanism permits. The publishers and printer are not responsible for the statements of the speakers or the points of view presented.

THE BROADCAST OF FEBRUARY 8:

"Do We Need a New Approach to Peace?"

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THE BROADCAST OF FEBRUARY 15:

"Is There Any Defense Against Atomic Warfare?"



THE BROADCAST OF FEBRUARY 22:

"Should We Adopt a Compulsory National Health Insurance Program?"



The Broadcast-Telecast of February 8, 1949, originated in Town Hall, New York City, from 8:30 to 9:30 p.m., EST., over the American Broadcasting Co. Network.

Town Meeting is published by The Town Hall, Inc., Town Meeting Publication Office: 400 S. Front St., Columbus 15, Ohio. Send subscriptions and single copy orders to Town Hall, 123 West 43d St., New York 18, N. Y. Subscription price, \$4.50 a year. 10c a copy. Entered as second-class matter, May 9, 1942, at the Post Office at Columbus, Ohio, under the Act of March 3, 1879.

number of bronchial blockers and endobronchial tubes have been developed. A brief discussion of the advantages and disadvantages of the various types of apparatus is given.

The reasons for bronchial blocking set forth by the author are (1) to control secretions from the diseased part of the lung, (2) to produce a quiet operative field, and (3) to prevent mediastinal displacement. The only contraindication for bronchial intubation is a small airway as seen in children.

Good equipment, a sound knowledge of bronchial anatomy, unhurried preparation of the apparatus, and the selection of anesthesia are of utmost importance. The procedure of endobronchial intubation requires training and skill on the part of the anesthetist. When it is done well it provides safety for the patient and a quiet working field for the surgeon.

LUCILLE WATT, M.D.

Anesthesia-Reanimation in Intrathoracic and Cardiovascular Surgery (Anesthésie-réanimation en chirurgie endothoracique et cardiovasculaire).

JACQUES PIRARD. *Acta Anaesthesiol. Belg.*, 1952, 3: 69.

A review of anesthesia reanimation methods employed at the Santy Surgical Clinic is presented, including operations performed from November, 1951 to April, 1952, with a chapter on cardiac reanimation. Controlled respiration eliminates paradox respiration and interferes least with the operator, permitting insufflation or depression of the lung as required at any moment. The closed circuit method with the Waters absorber is employed for intrathoracic, esophageal, and mediastinal operations; this reduces the chances of hypercapnia, pulmonary atelectasis, and fatigue of the right heart. Following such anesthesia it is necessary to re-establish and maintain the normal intrathoracic pressure by reinsufflation of the lungs, by siphonage, and by continuous aspiration via the thoracic drain. Normal spontaneous breathing is re-established by placing the Waters absorber outside of the circuit and decararization with discreet doses of prostigmin.

In these operations anesthesia is induced with 5 per cent nesdonal followed by curare and intubation. It is maintained with nitrogen protoxide in concentrations not exceeding 50 per cent and successive re-injections of curare. No more fluid should be administered than has been estimated as lost. The average amount of blood transfused in 60 pulmonary operations was 1,050 c.c.

level is below the 2 and test plasma in series of venesection identical amounts of Forced fluids, anti-oxygenation in a re the only pre-anesthetic atropine. Induction followed by a profound intubation. The a closed circuit with controlled respiration. potentiates the curare (kgm.), and the depression necessary some which be given toward the average duration of

The treatment of including intrapleural deficiency, and cerebral tation to the different meningeal hemorrhage heading of cardiac with the proper a ferior vena cava paragraph is also tetralogy of Fallot well as the anesthesia ligation of the du operation. Disturbance by intracardiac tive local anesthetic 1/2 to 1 per cent sur and hyperthermia.

Repeated electrocardiographic heparin weeks, and aortic stenosis of the isthmus used was nesdonal which provides an clamping of the a mortality in this series

Reanimation of of special interest during operation v due to asphyxia during cyclopropane anesthesia ing such anesthesia ous. Syncope may tion on the appendage as pericardial, myocardial

by several investigators. A deficit, as related to oxygen, is recognized only in the open air. Furthermore, when an operation is performed on a patient with a low pulmonary reserve, the results are more probable.

The use of an oximeter and the results have been shown that it is more accurate than ordinary means. It is particularly valuable in the determination of arterial blood oxygen. The presence of visible cyanosis is more accurate in the determination of arterial blood oxygen. With this apparatus the fall in oxygen saturation during anesthesia, icterus or anemia, is noted, however, has to be kept in mind. An oximeter is a reliable method of determination. Variability of determinations of arterial blood oxygen should not exceed ± 5 per cent. The variability of ± 3 per cent. is sufficient for clinical operations and operations on clinical signs, use of the safe performance of patients, particularly in the safe performance of patients.

The author describes an anesthetic technique of pentothal nitrous oxide oxygen with curare for tonsillectomy. It consists of the usual premedication of 20 mgm. omnopon and 0.25 mgm. of atropine. On the operating table, the pharynx is sprayed with 10 per cent cocaine. After 1 to 2 minutes the required amount of pentothal in 5 per cent solution is injected, followed with 15 mgm. of curare. Endotracheal intubation is performed with a Magill tube No. 8 which is connected to an anesthetic apparatus, the head is lowered with the Boyle Davis gag inserted, and a pack is placed around the endotracheal tube directly above the glottis. Then from 4 to 5 liters of nitrous oxide and 1 liter of O_2 are used in a semiclosed system, with no absorber, throughout the tonsillectomy. For some patients, a small amount of ether was added. On completion of the operation the patient quickly regained consciousness; in most cases he talked immediately, coughed and responded. Two hundred and twenty cases without complications of any kind are presented. The author believes that local anesthesia for tonsillectomy may be the ideal method for many surgeons, but for most patients it is psychologically unsatisfactory. The advantages of general anesthesia are: (1) less violent wound reaction, (2) less postoperative pain, (3) cardiac patients do better under general anesthesia; (4) there is less likelihood

pressure anesthesia. Oxygen-rich anesthetic mixtures should be employed. Although the most frequent disturbances in oxygen saturation during intrathoracic surgery are due to factors inherent in certain anesthetic drugs or methods of management, some surgical procedures may cause pronounced alteration in proper oxygenation.

With the aid of an oximeter it is possible to remove successfully more than 50 per cent of the lung tissue. Such a case is presented in a 31 year old man with multiple congenital arteriovenous fistulas of the lung. The procedures, consisting first of a left pneumonectomy and then the removal of parts of all three remaining right lung lobes 8 years later, are reported. By properly using increased inhalation pressure during all periods of serious oxygen deficit the patient was safely carried through the necessary procedures.

LEROY J. KLEINSASSER, M.D.

Pentothal-Nitrous Oxide-Oxygen Anesthesia with Curare for Tonsillectomy. F. VAN NOUTHUYS.
Arch. chir. Neerl., 1952, 4: 95.

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tate of intravenously infused isotonic saline, in three tests the extracellular fluid volume 1 hour after the end of the infusion remains unchanged. In 17 tests the expansion of the extracellular fluid volume ranged from a fraction to double the quantity of saline solution infused. The data revealed that in 1 hour the saline solution may enter the intracellular compartment to a variable extent or may cause sodium chloride and water to shift from that compartment to the extracellular compartment. Anesthesia caused expansion of the extracellular fluid volume in 7 of 14 patients, while in 3 patients the extracellular fluid volume decreased by 8 to 16 per cent of the control values.

ALLAN D. CALLOW, M.D.

Infusions via the Bone Marrow and Biopsy of the Bone and Bone Marrow. ARTHUR B. TARROW, HENRY TURKEL, and MILTON S. THOMPSON. *Anesthesiology*, 1952, 13: 501.

The advantages and disadvantages of trephine technique for bone marrow infusion and biopsy, with the use of Turkel needles, are discussed. The use of this technique may be life-saving and should be utilized as an alternative method when it is impractical to employ the peripheral vein route. It is useful in cases of circulatory collapse, when veins are poorly accessible, when veins cannot be used because of thrombosis or burns, when there is insufficient time to do a cut-down, and when continuous infusions are contemplated for several days. The more serious disadvantages of bone marrow infusion are as follows: osteomyelitis may develop if the site of puncture is contaminated; positive pressure may be painful if the patient is not under anesthesia; the sternum may be penetrated; and mediastinitis may result.

The technique is described for biopsies or infusions (or both) of the sternum, tibia and femur, iliac crests, and vertebral bodies. Stress is placed on the need for sterile technique to avoid infection. When the body of the sternum is to be used the puncture should be made 3 cm. from the manubriosternal juncture. If the manubrium is to be used, the puncture should be made approximately 2 cm. from the same junction. The tibial or femoral puncture is the preferred route for children under 5 years of age. Here care must be exercised to aspirate the marrow contents to avoid air passing directly through the large nutrient veins into the general circulation.

MARY KARP, M.D.

There is no part as long as anoxia of administering the precise, and delicate that may become way is obviously of

The postoperative guarded and respiratory. If the patient is unconscious, catheter aspiration,

The author prefers very poor risk patients required cyclopropanal doses of curare risk he prefers to intubation, and anesthesia administration of 50 per cent with repeated doses

Anesthesia and Shock und Schock bei JASINSKI. *Helvetica*

Clinical observations lead to the conclusion that relation on the one hand, and anesthetic difficulties on the other, a number of mostly respiratory anesthesia occurred in had iron deficiency hemorrhages.

A certain number of animals on a normal diet. Another group received an abnormal diet and partial group received an abnormal diet several months before intravenously. One group received injections of adrenal acetylcholine.

The results showed repeated slight losses to produce anemia. More anesthetic was required for animals to reach the same level of anesthesia. Animals were also more resistant to shock by acetylcholine. Complete shock following anesthesia animals tolerated relatively well.

The effect of adrenal formation of any de

Asphyxia, Its Prevention
VID M. LITTLE, JR.,
MARY LOUISE WHITE.

A generic term used to describe the lack of oxygen in the blood. The findings are present in the newborn infant because of his lack of oxygen. It is one of the major causes of death and is classified as asphyxia. The signs of asphyxia are cyanosis, complete atelectasis of the lungs, and a decrease in the arterial blood pressure and an increased ten-
sion of the umbilical cord. The increase in lactic acid and hydrogen ion concentration become evident that this condition may be fatal. The damage to the central nervous system is frequently irreversible. The ability to learn, to grow, and the problem of the future of the child are one of the major problems of resuscitation. The neurologic damage. The problem involves proper care and intrapartum management of situations in which asphyxia syndrome are called for. The parity, and health of the mother, the position of the fetus, the duration and type of labor, and the analgesic employed. Postpartum gentle resuscitation means of direct or indirect. Oxygen must be given. Warmth maintained during the period and thereafter. The newborn infant must be kept to a fair extent by the mother. This way gastric contents are aspirated into the lungs. The aspiration of all newborn infants was attempted. The authors and a high infant mortality rates

The administration of isotonic saline orally or parenterally to normal individuals results in a sluggish and highly variable excretion of salt and water. This abnormal excretion is exaggerated in the postoperative state and occurs in the presence of normal renal function. It is now known that neither sodium nor chloride is confined to the extracellular fluid and consequently it may be inferred that after the administration of a saline infusion a variable quantity of sodium chloride and water may shift to the intracellular compartment. Utilizing inulin as a substance of reference, the authors have attempted to determine the fate of intravenously administered isotonic saline solution in nonoperative subjects, as well as the effects of anesthesia upon the distribution of body fluid and its effects upon the fate of saline solution. The authors utilized a combination of the "total recovery method" together with a modification of the calibrated-infusion-and-calculation-by-difference method to permit a dual method of checking the inulin space before and after saline infusion. Para-aminohippuric acid (PAH) was included in the inulin infusion in order to permit the determination of the renal plasma flow.

An inulin solution of accurately known composition was infused at a constant and controllable rate. After uniform distribution of the inulin had been established, 2 or 3 liters of isotonic saline solution were infused at rates ranging up to 40 to 60 c.c. per minute, the slow infusion of inulin and collection of urine continuing throughout this period and for 60 to 120 minutes thereafter. Homogeneous redistribution of the saline and inulin was assumed to have occurred at the end of 1 hour.

Eighteen unoperated subjects were studied with respect to the immediate fate of saline solution. Fourteen additional subjects were studied with respect to the effects of anesthesia. The anesthetic agents studied were cyclopropane, ether, or pentothal in combination with nitrous oxide and oxygen. No fluids were given intravenously during anesthesia and operation except for the administration of 2.5 per cent sodium pentothal solution.

The data given by the authors show that saline solution suffers a highly variable fate in the body, sometimes passing entirely into the intracellular compartment and sometimes causing the withdrawal of fluid from that compartment in amounts exceeding the volume of solution administered. Inasmuch as the plasma sodium concentration showed little

bandage could not be induced until the exposed popliteal artery had been repeatedly moved about in various directions. Suddenly a powerful stream of blood spurted forth. Now the lumen of the popliteal artery was found to be opened for a distance of about three-fourths of its diameter. The artery was ligated above and below the damaged area; gangrene did not develop and the patient recovered.

On the basis of these experiences the author wishes to emphasize the following points:

1. That the secondary bleeding usually occurs from 10 to 15 days after the injury; in a few instances it occurred before the tenth day and in a few others, after 2 months.

2. That the hemorrhage occurs predominantly in the night time and tends to recur 2 or 3 days later, unless, of course, proper treatment is instituted.

3. That there is no reliable premonitory sign whereby the bleeding can be anticipated.

4. That gunshot wounds must be guarded from the development of suppurative processes as such secondary infectious processes may erode an entirely normal and uninjured arterial wall. The author mentions that proteolytic ferments may be developed by the injured tissues of the wound itself.

5. That the first appearance of secondary hemorrhage should be regarded as an indication for radical surgical measures.

6. That the best treatment for this form of secondary hemorrhage is ligation of the injured vessel.

7. That in the prophylaxis of secondary hemorrhage the greatest importance is to be placed upon the proper and the radical primary treatment of the wound.

JOHN W. BRENNAN, M.D.

Prophylactic Treatment of Tetanus, with Special Attention to Active Immunization (Beitrag zur Tetanusprophylaxe unter besonderer Beruecksichtigung der aktiven Immunisierung). A. MOEHLBRUCH. *Chirurg.*, 1952, 23: 357.

Serum shock, serum sickness, and serum polyneuritis are the drawbacks of prophylactic administration of serum against tetanus. Tests for serum protein sensitivity and for allergy cannot always be performed when first aid is rendered. The employment of protein-poor sera which contain chiefly gamma globulins gives encouraging results in this respect.

The author advocates replacement of the prophylactic administration of serum (popular in

ence of strains also are reporting the in 13 months from Jan. In addition, the streptomycin, terramycin considered.

Of 915 strains of from inpatients during 1, 1951 and February resistant to penicillin 72 (7.9%) to aureomycin-chloramphenicol.

All the strains were resistant to ten eight per cent of the cillin, and 66 per cent. None of these strains. The first strain resistance during at. Subsequently the hospital cross-infection.

A survey of the carriers of the hospital staff carriers of staphylococci, 8 were carriers, 47 per cent were resistant strains, aureomycin-aureomycin-one of one particular phage.

There was a close distribution of phage the strains from the staff.

Development of Phages During the War *J. Am. M. Ass.*,

Eight case histories the relative importance of monas in the production may arise during atious diseases.

In one hospital 8 per cent in 1948 the same period of time increased from 15 organisms are of importance isolated in pure culture and *Pseudomonas* survive the attack antibiotics.

the leg had to be amputated above the knee.

In the second case, a 41 year old male was wounded by an army rifle in the left infraclavicular region. The bullet lay in the area of the left shoulder joint. When examined, 5 days later, the ragged wound in the left infraclavicular region was exuding pus and there was a moderate rise in temperature. Despite the administration of sulfonamides the temperature did not fall and the exudation did not decrease. On the ninth day after the injury, about 3 hours after midnight, the patient began to hemorrhage and died before arrival of the physician. Autopsy disclosed the fact that it was the subclavian vein and not the artery that had been damaged.

In the third case, a 46 year old male was wounded by an army rifle, the projectile traversing the upper part of the leg. In addition to the soft tissue wound there was evidence of fracture of the fibula. The limb was dressed and placed on a Braun splint. Four days later the area of the wound assumed a dark bluish swelling and evidenced a definite pulsatory movement. The swelling continued to increase and on the tenth day, despite tamponment of the wound and a pressure dressing, about 3 o'clock in the morning, a severe hemorrhage occurred. An Es-march bandage was applied and the patient was immediately sent to surgery. The hemorrhage was found to issue from the tibialis anterior artery. This was ligated. The swelling was found to be composed of coagulated blood and in communication with the damaged artery.

In the fourth case, a 32 year old male received a wound from a mine. The wound was located in the lower third of the thigh. The roentgenologic examination disclosed a portion of the mine mechanism embedded in the soft tissues of the popliteal area. This was removed; it was 2.2 cm. in length. Two days later the patient complained of violent pains in the area of the wound; the thigh began to swell at this point. The local temperature was increased and the body temperature between 38 and 39°C. The wound began to discharge purulent material. Penicillin (30,000 Oxford units every 3 hours) was given, but the suppurative discharge continued and the general condition of the patient deteriorated. Ten days after the beginning of the penicillin treatment, at about 4 o'clock in the morning, the patient experienced a violent hemorrhage. An Esmarch bandage was applied and the patient was sent to surgery. At operation the musculature had the appearance of cooked meat and was quite friable.

g Gunshot Wounds

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dressing with slitting. In closed cases the most important feature of therapy is the surgeon's suspicion that a devascularizing injury may have occurred. If extensive necrosis is anticipated, the area should be incised generously and treated as an open case. If there is some question as to whether necrosis will occur, hematomas should be evacuated through one or more small incisions. Light pressure dressings should be applied, and the wounded part kept under careful observation. Subsequent sloughs and cases of gangrene of the skin in cases in which the injury was seen late should be subjected to excision of the devitalized skin and early grafting.

BENJAMIN F. LOUNSBURY, M.D.

Burns: An Annotated Outline for Practical Treatment. FRANCIS D. MOORE. *Med. Clin. N. America*, 1952, 36: 1201.

The author presents an excellent classification of burns and delineates in detail the treatment of minor burns through extensive body burns. He points out that the treatment of an extensive body burn requires a surgeon to exert himself to the utmost, both physically and mentally, and that an extensive body burn involves a valid understanding of sweeping physiological changes in salt and water balance, respiratory physiology, cardiovascular dynamics, bacteriology, endocrinology, and nutrition. In presenting the selection of cases for treatment, a striking contrast in the problems involved at the two ends of the burn spectrum is described in concise annotated sentences. The problem of respiratory emergencies resulting from severe burns is particularly emphasized. The concept of discontinuing the use of one antibiotic after a few days' therapy and substituting another, and still another later on, is mentioned.

In the repair of burns, the "golden moment" is described as the first moment at which débridement of part or all of the burn can be safely done, and at which time grafts can be placed. When the subcutaneous fat appears relatively normal without infection and the folly of exuberant granulations has not been allowed to interfere, then, if blood volume is normal and the intake and output good, the "golden moment" has arrived.

The early resumption of ambulation after covering flexor and extensor surfaces of joints will improve the patient's morale and general condition. The final closure by "patch work" grafting of residual open areas, preferably left in areas where contracture will

will always find a always enough circulative transport of oxygen blood cells are respectively, the author do blood in the acute Hemoconcentration indication to transf

Serum and plasma that they produce the risk of infection has been found ex osmotic pressure in utmost importance large quantities, n toward reactions; it given in adequate d the treatment and patients.

The combination concentration is sim can be started at or

The purpose of tre concentration, and

One hundred and treated in this mar ciples of treatment

The Influence of E Mortality from
BROOKS, EVERET JR., and J. DOUG 533.

Thermal injury problem following th shima and Nagasaki sonal observation, medical scientists, attacks the bomb vi tion and malnutritio the mortality there make it difficult to mal injury alone.

This study, there pens in the experin inflicts at the same ti minor external bod minor that each, w nonlethal—all of tl better the fundame

and tenderness, was particularly in cases of massive corticotropin therapy, is a potential complication. Administration is probably abrupt. The presence of the gastrointestinal contraindication to cortisone; these hormones in patients with "hypersensitive reaction" of these hormones. In postoperative patients it was thought to be of renal function. To prevent thyroid crisis by which seemed justified. Dialysis was available. Corticotropin and cortisone have established anticoagulation of venous clotting, but not. The authors believe the utilization of the therapy of postoperative systemic manifestations severe. Their effects secondary to cortisone. Clinically at least, and that the hormones respond or with the presence of an infection while local measures were used and cortisone were management of lower effects of operative shock or effects were equivalent. No decision regarding cortisone and cortisone in reaction against non-convalescence of immediate treatment of patients with exhaustion. In the absence of renal cortical function defects and the cortical effects of these hormones is avoided except for appropriate conditions involved. D. CALLOW, M.D.

and direction of movement from the patient's hand. The almost instantaneous resolution of this situation results from the ring's remaining in the grasp of the snagging object and avulsing the whole of the digital skin. The skin carries with it all of the subcutaneous fat, the nerves, and the blood vessels. In extreme instances the cuff of soft tissue is entirely dissected off; in others, a small pedicle remains to provide varying degrees of blood supply to the avulsed skin. Because the bony structure and tendons of the digit are spared, every effort must be made to save the finger.

The treatment depends entirely upon the degree of injury to the avulsed skin. When little or no blood supply remains the decision as to what to do with the flap is simple; it must be detached and the denuded digit buried beneath the skin and subcutaneous fat of the abdomen or forearm. The authors emphasize the dangers of being too conservative with flaps of questionable viability. Subsequent necrosis of the flap with infection and destruction of the underlying bone and tendon will render salvage of the finger impossible. The flap which has an adequately wide pedicle, especially if it contains a digital artery, may be used to cover the tendon and bone. Thorough wound toilet and removal of loose fatty tissue are essential. Since the prevention of venous stasis is almost as important as a good arterial supply, pressure dressings are also essential. Other therapeutic items include the use of ice packing to the arm to lower the metabolism, antibiotics, elevation of the arm, and adequate medication for pain.

BENJAMIN F. LOUNSBURY, M.D.

Friction Injuries Following Road Accidents. C. C. SLACK. *Brit. M. J.*, 1952, 2: 262.

This interesting article presents one phase of the trauma of road accidents that is often not fully appreciated, namely, the fact that friction can pull the skin so far from its vascular attachments to deep tissues as to sever those vessels. The usual mechanism for friction injuries in road accidents is that a wheel passes over an extremity which is in contact with the ground or other firm underlying surface. Since the skin can readily slide over fascia and muscle, whereas the whole extremity cannot slide commensurately beneath the wheel which has impinged on it, the skin does yield to the rotary movement of the tire and travel with it for varying distances. In severe instances of such torsion the skin is avulsed and an open wound is produced which can

fore it must also have pedicled grafting when it has been exposed. The authors report 2 cases of defects in the posterior part of the lower third.

For many reasons the pedicled grafting of defects of the skin of the leg should be done in one stage. Traditionally, this has involved a flap from the opposite thigh. Surgeons have avoided taking a flap from the opposite leg because the blood supply of such flaps is poorer than that of flaps from the thigh. However, the authors have had success with leg flaps when a wide base was maintained with relatively short length (in a ratio of 2 to 1). The base of the flap is in a vertical plane on the posterior or posteromedial aspect of the sound calf. The free border of the flap is cut just medial to the border of the tibia. Obviously, anterior defects cannot be covered by this method, but for posterior defects of suitable size and location this type of flap has many advantages over the cross-thigh flap.

BENJAMIN F. LOUNSBURY, M.D.

The Effect of the Intravenous Administration of Procaine on Postoperative Sickness (Erfahrungen mit intravenösen Novocaingaben bei der postoperativen Krankheit). R. VARA-LOPEZ. *Chirurg*, 1952, 23: 360.

Postoperative shock and grave postoperative disturbances are being treated by the author with procaine administered by intravenous drip.

In addition to losses of blood plasma and erythrocytes, nervous, toxic, and other stimuli play a role in the development of so-called postoperative sickness. The operative trauma exerts an influence on the autonomic centers and produces functional changes in the diencephalon, which in turn affect the hormonal system within the hypophysis and the suprarenal glands and provoke Selye's alarm reaction.

Destruction of tissue by the operative trauma leads to disturbances of the intermediate metabolism in the affected areas, with liberation of certain amines, so-called noxines. The latter affect the capillary permeability which leads to the formation of exudates, with resulting impairment of the diffusion of oxygen between the capillaries and the cells. Noxines are also responsible for vasodilating reflexes and capillary lesions which are important factors in the development of postoperative sickness.

Intravenous procaine infusions were employed in the treatment of postoperative shock which developed in 26 patients following extensive operations

There is no danger of the hydrolysis of no

Observations on the Effect of Pituitary and Cortisone in the Postoperative Period
SZILAGYI, R. R. JAY, III. *Arch. Surg.*

As a result of new data on the function of the pituitary-adrenocortical system experimentally and in clinical practice, and occasionally disturbance of the regulation of electrolyte and fat metabolism, of the reaction, and of the function of the various systems of the body. The function of the body is at all times dependent on the functioning of the endocrine system. The adrenocortical system may serve a purpose in the defense of the body against various varieties. One may say that the pituitary is equivalent to a switch upon the body as a whole. The pituitary-adrenocortical system is a part of the surgical stress reaction.

The pituitary-adrenocortical system may be a source of surgical problems for the surgeon. To enhance the effectiveness of the organism as a whole, and one may attempt to correct specific pathologic processes. The organism is susceptible to the effects of the hormones. The authors recognize the value of the methods of study and the use of a truly rational treatment. The recognition of the functional insufficiency of the endocrine system is the basis of the therapy.

Corticotropin was used in 10 cases and cortisone in 10 cases. In all cases there was a finding of absence of corticotropin. The dose of corticotropin was administered in 100 mgm. divided into 4 injections, while the dose of cortisone was 300 mgm. given in 3 to 100 mgm. daily.

many anesthetic tests, and that a high major anesthesia induced a series of to study the effect concentrations in intratracheal the effects studied.

Intests suggesting that often fatal, dogs had 7.0 and 6.7 over with only slight infinite bradycardia, the period under observation per se, therefore, when combined with were often present in with more importance. which had been bled with hypotension and myocardial ischemia. sudden change in pH in apneic animal suddenly studied. There ventricular fibrillation present of the animals when controlled by death; however, prevention of death concentration of carbon

gas clear, since hypercapnia to normal carbon dioxide is common occurrence. Correlation of these changes, cardiac arrest has been observed the authors preventing respirations with anesthesia and the presence of carbon dioxide concentration. M. UNGER, M.D.

Use of Intravenously Administered Human Albumin (Versuche ueber intravenoese Humanalbumin) *Deut. med. Wschr.*, 1952, 77: 171.

On the number of pathologic changes differentiated in the blood as it occurs after

injection of human albumin has been studied by a number of men; however, in spite of many clinical experiences, little has been published about the time the injected albumin remains in the circulation and about its final destiny.

The author studied this question in two groups of patients: 7 suffering from nephrosis, and 6 with various chronic diseases without albuminuria.

The tests included total blood protein, serum protein, and colloid osmotic pressure; and total nitrogen as well as urea nitrogen in the urine.

In all 7 patients with nephrosis, the serum albumin returned to the original level within 6 to 8 hours after a single intravenous injection of 10 to 20 gm. of human albumin. The injected albumin was excreted in the urine completely after a latent period of 2 or 3 days. Also, when albumin was given daily for a period of 4 to 5 weeks the excretion of albumin rose parallel to the injection, and it was not possible to influence the level of serum albumin. Only in one of the 7 cases did the serum albumin level rise after the fourth injection of 20 gm. human albumin, and did the loss through the urine decrease simultaneously.

The picture was different in the six cases without albuminuria. Also here the total blood protein, serum albumin, colloid osmotic pressure, and plasma volume returned to the original level 6 to 8 hours after albumin injection. However, in daily continued injections the urine nitrogen did not increase. This proves that the infused albumin was stored in the body in patients with unimpaired kidney function.

The author concludes that in nephrosis intravenous albumin therapy is ineffective and should be discouraged. On the other hand, in cachectic states due to chronic disease like osteomyelitis or tuberculosis, human albumin therapy should be tried if the condition is accompanied by chronic hypoproteinemias. Whether the retained albumin is stored or utilized for formation of cell protein has not yet been decided.

The author used human albumin in a series of 60 patients. Side effects were rare and mild in all but 1 nephrotic patient who reacted with shock and circulatory collapse. Symptoms of allergy were not observed in any case. WERNER M. SOLMITZ, M.D.

The Use of Posterior One-Stage Pedicle Flaps of the Lower Leg. O. WICKSTROM and J. R. CONNELLY. *Plastic & Reconstr. Surg.*, 1952, 10: 6.

In extensive injuries of the leg in which loss of skin has been sufficient to require some type of grafting,

The author reports 2 cases of tumor of the small bowel in which the tumors were demonstrated by preoperative roentgen examination. During barium enema study, both tumors were demonstrated by retrograde filling of the small bowel. Both lesions proved to be lipomas arising from the submucosal layer. One was located about 10 cm. proximal to the ileocecal valve, the other, in the base of a Meckel's diverticulum, about 60 cm. proximal to the ileocecal valve. Neither had produced obstruction although there was intussusception in the latter case, and whether this was produced by the tumor or the invaginated Meckel's diverticulum is not known.

The author again stresses the importance of repeated mouth meals, small intestinal enemas, and retrograde filling of the distal small bowel in any case with unexplained bright red blood in the stool.

The long life history of benign tumors of the small bowel is clearly demonstrated in these cases.

In Case 1, the patient was a white male, 40 years of age, who first noticed bright blood in his stool 2 years previously. The clinical study was negative except for a few small internal hemorrhoids and a small rounded filling defect in the terminal ileum observed on roentgen examination of his gastrointestinal tract. At operation, a typical lipoma 3.5 by 2.5 by 2.5 cm. was found.

In Case 2, a white male, 48 years of age, had intermittent discomfort in the right lower quadrant, and a 6 year history of bright blood in the stools. Clinical study revealed a moderate anemia and a filling defect in the small bowel, the latter a tumor mass plus an intussusception.

NORVAL F. ZIMMERMAN, M.D.

Cystadenoma of the Pancreas. A Report of 2 Cases Showing Calcification. ROBERT S. HAUKOHL and ABRAHAM MELAMED. *Am. J. Roentg.*, 1950, 63: 234.

The authors describe in detail the hospital course of 2 females with cystadenoma of the pancreas. One patient died in shock postoperatively and the other survived without event. The true incidence of this relatively rare tumor is not known. Brunschwig estimated that about 50 cases had appeared in the literature up to 1942. Eleven additional cases can be found since then, which, including these cases, makes a total of 63 cases reported in the literature to date.

tumor's malignant adenocarcinoma, will a more solid and pap tumor will recur if By roentgenological distortion of surrounding stomach, duodenum ureters, the localization direct demonstration reported, which shows opaque and rather dis

A discussion of the in the roentgenogram

Carcinoma of the Testis. Report of 2 Cases. JOHN O. LAFFERT. *Am. J. Roentg.*, 1950, 63: 234.

Metastasis from carcinoma of the testis is unusual, as judged by literature, but the author reports two cases which took place. One of the patients was a maphrodite and the other had an undescended testicle.

Both patients received roentgen therapy in one area in which 4,000 r. was given the tumor grew smaller doses for the metastatic lesion is seen.

The danger of carcinoma of the testis is stressed, and the author stresses that the testes if they cannot be removed, in which they can be removed and frequently.

Roentgen Diagnosis of the Internal Secretory Function of the Adrenal Glands. ROENTGENDIAGNOSTIKEN DER INNEREN ENDOKRINEN DRÜSEN. WERNER STAEBLI. *Am. J. Roentg.*, 1950, 63: 202.

The author discusses the importance of roentgen diagnosis of the internal secretory function of the adrenal glands. His experience is based on 13 cases.

Only in 13 per cent of the cases was it possible to inject the contrast

	vein	
Aorta in adults	Through radial artery	Pulmonary artery
(a) Patent ductus		Middle part of ascending aorta
(b) Coarctation		Just below origin of innominate artery

Projections. Roentgenograms are taken in at least two planes at right angles to each other (true frontal and lateral views).

Position of catheter. The tip of the catheter should lie in the cardiac chamber or vessel to be examined. The right auricle does not represent great interest from the point of view of angiocardiology. The right ventricle, however, is very important since it forms the site of some of the most common congenital malformations. The ideal thing would be to have the tip of the catheter in the center of the ventricle but this is difficult to realize, unless the catheter is inserted through the jugular vein. The authors prefer the cubital vein, and use a No. 8 or No. 9 French catheter. Fifty to 70 c.c. of a 70 per cent umbradil (diodrast) solution are injected in 3 to 4 seconds. There is no satisfactory method as yet for the examination of the left auricle and ventricle, although it is possible to insert the catheter occasionally into them through the aorta.

The above scheme is suggested for visualizing the chambers of the heart and the great vessels.

In cases of coarctation, the catheter can be replaced by a cannula inserted through the right common carotid artery. In these cases a 50 per cent solution should be used.

T. LEUCUTIA, M.D.

The Roentgenogram After Pericardiectomy (Das Roentgenbild nach Pericardektomie). H. ANACKER. *Fortsch. Roentgenstrahl.*, 1949, 72: 173.

Proliferation of fibrous tissue is often a sequel of pericarditis. In the course of years, calcium is deposited in these adhesions which often encircle the heart like an armour and impede its action. This pericarditis calculosa causes severe symptoms—dyspnea, cyanosis, and ascites. Pericardiectomy is successful and often lifesaving in these conditions.

The author reports on 4 pertinent cases and discusses the roentgenogram and kymogram before and after the operation.

be avoided by using a catheter that can be introduced without dilating the artery, ordinarily a French catheter, No. 8 or 9.

2. Difficulty in directing the catheter to the aorta, prolonged manipulation of the catheter constituting a risk for arterial spasm. The tip of the catheter may enter, or may be caught at, the point of origin of branches arising from the axillary and subclavian arteries, and especially at the point of origin of the vertebral artery. These complications are overcome by rotating the catheter and thus altering the direction of its curved tip, by raising the arm of the patient in an upward direction, and by pressing the hand firmly on the axilla, or the thumb on the supraclavicular fossa.

3. Difficulty in bringing the tip of the catheter into the correct position. The tip should not be placed too low when it can glide into the coronary artery, or too high when, owing to the increased pressure of injection, it has a tendency to straighten out and thus can be flung over into the descending aorta.

In performing thoracic aortography with a cannula, it is important that the cannula be pushed right down into the aorta. This can be accomplished by introducing the outer cannula into the aortic arch with the aid of a guide thread.

In thoracic aortography, a not inconsiderable amount of contrast medium passes through the carotid arteries into the cerebral blood vessels. In one of the authors' cases the innominate artery instead of the aorta was injected by mistake and the patient developed epileptiform seizures and hemiparesis lasting for 4 days. In the majority of the cases 50 c.c. of a 70 per cent solution of umbradil were used for the injection, but in view of the possible cerebral complications the concentration has now been reduced to 50 per cent in coarctation of the aorta where the risk is greatest.

The injection is done with the aid of a specially constructed pressure apparatus at the rate of 50 to 80 c.c. in 3 to 5 seconds. The roentgenograms are taken by using an automatic cassette changer which permits the exposure of one pair of films per second (in the anteroposterior and lateral views). A rate of 3 pairs of films per second and an exposure under electrocardiographic control is desirable.

T. LEUCUTIA, M.D.

chiectasis of the lobes.
The author's discussion
review of the early stages
pathomechanics of bronchial
paper is a consideration
bronchial dilatation.

A. Pressure from

1. Pressure of
2. Excess pressure
the gas pressure
chamber

B. Traction from

1. Traction from
(pneumonic)
2. Retraction
fibrosis.

Each of these factors
and the conclusion is
side of the bronchus is
component in the path

The knowledge of cause
and the presumptive
is a prerequisite to in
tion of hopelessly ad
tion of the lung is re
adjusts functionally
better understanding
chemotherapy, and e
conservative treatment
was previously thought

From the evidence
bronchiectasis results
upon bronchodilatation
tion of the bronchial
step. The aim of treatment
reversible deformity
fection must be combated
areas must be revealed
infection.

**The Reaction of the
Viscous Umbradil
(tra,) Umbradil
Cellulose. An Experimental
Animals. B. H. H.**
Acta radiol., Stockholm

In these experiments
used 130 large white

make the evaluation errors. This is true in the third and fourth, as the shadows of mastoid processes are impede the diagnosis

disadvantages and fail the technique of the system and its end a number of instructions and exact localization of the ventricles

M. SOLMITZ, M.D.

Arterial Catheterization of a Static Tumor in the Thorax STIG RADNER. *Acta*

the various methods of catheterization was re-

When he injected roentgenographic control into the catheter is inserted via the subclavian artery. A modification was made in 1931 by Ara who used the internal jugular vein. In 1947 by Chavez, who entered the external, internal jugular vein.

Catheterization was started by Sjöström described his technique by catheterization of the subclavian artery. This method was not used by him in 1947, introduced by him when the catheter being inserted into the subclavian arteries into the thorax. This method in 1942 by him. The insertion of the catheter in more than 95 per cent of the ages of 1 and 76 years. In 1947 he introduced thoracic catheterization from the radial artery. This method has been used

catheterization 8 to 10 c.c. of a 2.5 per cent solution of papaverin hydrochloride are injected intramuscularly, in adults, to prevent arterial spasm. In the lower ages, this dose is reduced correspondingly. Morphine is given prophylactically for the transitory pain caused by the injection. Under local anesthesia the radial artery is exposed in the proximal part of the forearm. Two ligatures are placed, the lower one tightly and the upper one loosely. A small incision is made between the ligatures, the upper being drawn to close the artery temporarily. A ureteral catheter is then inserted through the incision and guided under fluoroscopic control into the subclavian artery. In adults usually a French catheter, No. 6 to 9, is used. After the catheter reaches the subclavian artery a sphygmomanometer cuff is placed on the arm and insufflated to a pressure slightly above the systolic blood pressure. A dose of 15 c.c. of a 35 per cent solution of umbradil (astra) is injected rapidly and two roentgenograms are made, one at the end of the injection and the other 3 or 4 seconds later. After the withdrawal of the catheter the upper ligature is removed. No vascular disturbances have been observed from tying off the radial artery.

One illustrative case is briefly presented and the respective roentgenograms are reproduced. The subclavian circulation was successfully visualized together with a walnut-sized system of pathologic vessels due to the presence of a metastatic tumor in the upper part of the thorax. The method so far has been applied only in one case, but its further use is intended.

T. LEUCUTIA, M.D.

Thoracic Aortography. Observations on Technical Problems Connected with the Method and Various Risks Involved in Its Use. BROR BRODÉN, GUNNAR JÖNSSON, and JOHAN KARNELL. *Acta radiol.* Stockh., 1949, 32: 498.

In 1948 the authors reported a technique for thoracic aortography which is an extension of the technique developed by Radner. The contrast medium is injected through a heart catheter inserted into the aorta via the radial artery in the right forearm. This technique has proved to be of value especially in the patent ductus arteriosus (Botalli) where it is advisable to inject the contrast medium as close as possible to the aortic orifice. For cases

moreover, much of the material is wasted via this route. The author reports that the intraduodenal instillation of mixtures of amino acids and polypeptides proved to be eminently satisfactory on several occasions.

Continuous suction applied to an indwelling stomach tube was followed by recovery in a patient in whom, subsequent to severe burns, a Curling's ulcer developed, with massive hemorrhage and acute perforation.

DAVID H. LYNN, M.D.

Nicotinic Acid and Epinephrine Test for Determining the Source of Blood Supply of Delayed Skin Flaps. G. A. OLANDER. *Plastic & Reconstr. Surg.*, 1950, 5: 58.

The author presents the following test as a simple means of determining the source of blood supply to a delayed flap as an aid to the surgeon in planning his operative steps.

The patient is given 500 to 1,000 mgm. of nicotinic acid orally, which produces a flush in about 15 to 30 minutes and usually disappears in 1 to 2 hours. A 1 to 30,000 solution of epinephrine in $\frac{1}{2}$ per cent procaine, prepared by mixing 1 c.c. of 1 to 1,000 epinephrine in 30 c.c. of $\frac{1}{2}$ per cent procaine, is then injected around the margins or the base of the flap, starting just below the derma and carrying it down to the fascia, thus producing a diffuse infiltration of the area which could contribute blood supply to the

at this area.

2. If no blanching the flap, it can be a dependent circulation.

3. If blanching does or more, depending upon be assumed that collapse degree is occurring at

4. If injection of the plete blanching of the skip areas of blanching it can be assumed that is coming through the adequate. The converse true.

5. If injection around does not produce color if no linear streaking are produced across the perforating arteries if present.

In dark-skinned or "pimples" and skin texture

The author has used that it has been reliable transfer of flaps. No adverse were noted except in cases carried out too near the

modern has incorporated the pile at Oak Ridge, sodium molecule. By activity of the pentothal, another accurate method is available.

Study, with the use of the distribution of a single intravenous drug which produce. Their observations at high concentrations of dogs after intravenous size its rapid diffusion immediate distribution

ously is rapidly distributed the body. Within 30 the injection, most of blood and is found with distributed in the various in the brain, muscle, slightly less than that of the concentration of the higher. Subsequently final pentothal in significant concentration decreases approximately half of the pentothal is present in administration of 40 mgm. the rat.

Indication of a possible pentothal by a specific

esia on the Tensile Ends (Lokalanästetika hos läkande sår.) GUN- gRN, and PHILIP SAND- 42: 381.

healing rate of wounds local anesthesia was the wounds was used

re made in skin that per cent procaine and cent saline solution. which the wounds were

plastic surgery

PHILIP SANDBLOM, M.D.

Cardiac Resuscitation, Ventricular Defibrillation
(Résurrection cardiaque, défibrillation ventriculaire). P. SANTY and P. MARION. *Lyon chir.*, 1950, 45: 59.

Experiments on dogs and thoracotomies in man, performed on account of syncope in the course of operations, show that cardiac arrest assumes one of the following three aspects: (1) progressive dilatation of the cardiac cavities with a final arrest in diastole, (2) sudden ventricular fibrillation, or (3) cardiac arrest in systole, a rare occurrence.

In a child, 2 years and 10 months old, with the tetralogy of Fallot and left aortic arch, the heart stopped beating in diastole in the course of Blalock's operation. The acute dilatation of the heart lasted 5 minutes before massage of the ventricles and an intra-auricular injection of adrenalin and coramine resuscitated the organ.

In a man, aged 23 years, with the tetralogy of Fallot, ventricular fibrillation occurred at the beginning of Blalock's operation. Two electric shocks were given by placing one electrode upon the right ventricle and the other upon the left, and employing a current of 132 volts and 1.8 amperes. The fibrillation ceased immediately. Systolic contractions were re-established but, in spite of cardiac massage and repeated injections of coramine, adrenalin, and ouabaine, the patient did not recover.

Two methods have proved their value in the prevention of ventricular fibrillation: pericoronary infiltration with novocain and intramuscular injection of cocaine.

JOSEPH K. NARAT, M.D.

SURGICAL INSTRUMENTS AND APPARATUS

Some Uses of the Stomach Tube in Plastic Surgery.

H. J. RICHARDS. *Brit. J. Plast. Surg.*, 1950, 2: 278.

The author has found nasogastric intubation to be of distinct value in the management of certain conditions requiring plastic surgery. Two cases of orocutaneous fistula are presented in which closure of the defect by means of an acromiothoracic tubed pedicle was facilitated through the agency of an indwelling gastric tube. Gavage curtailed salivary drainage and prevented secondary infection of the graft. Perioral skin grafting in a child 16 months of

promptly to the systemic administration of bacitracin, the authors believe this to be the treatment of choice in this disease. Surgical excision should no longer be employed.

The recommended dosage of bacitracin is 400 units per kilogram of body weight every 6 to 8 hours. Daily urinalyses and frequent determinations of the blood urea nitrogen or nonprotein nitrogen should be made.

S. LLOYD TEITELMAN, M.D.

ANESTHESIA

Combined Brachial Block and Spinal Analgesia for Bone Graft Surgery. (Report of 83 Cases).

DANIEL C. MOORE and JOHN J. BONICA. *Current Res. Anesth.* 1950, 29: 43.

A combination of brachial block and spinal analgesia for bone graft surgery is described and the results with this technique in 83 cases are described. The Taylor method was used and successful results were obtained in 96 per cent of the cases. If the operations were below the elbow, ringing of the upper arm with a skin wheal for the tourniquet was unnecessary. In operations on the upper arm but below the surgical neck of the humerus, the intercostal brachial nerve must be blocked. A superficial cervical nerve and the intercostal brachial nerves should be blocked if the incision is to extend above the surgical neck.

For the brachial blocks and the intercostal brachial infiltration, 0.15 per cent pontocaine was used in 57 cases, procaine in 24, and metycaine in 2 cases. Dilutions of procaine and metycaine were not given. The procaine and metycaine were discarded because pontocaine afforded a more prolonged operating time. Up to 100 c.c. of pontocaine may be used with safety. Brachial block was done first, because it is a more prolonged procedure. Also, it requires a minimum of 30 minutes to obtain good analgesia and lasts longer than the spinal analgesia.

The spinal tap was done between the second and third lumbar vertebrae. The drug mixture employed was 1 c.c. of 1 per cent pontocaine, 1 c.c. of 10 per cent dextrose, and 0.2 c.c. (2 mgm.) of neosynephrin. The addition of small amounts of vasoconstrictors did not noticeably prolong the analgesia period. Larger amounts produced an adrenalin type of reaction.

carried from 5 to 8. After the completion of the etherization of patient, the authors believe this to be the treatment of choice in this disease. Surgical excision should no longer be employed.

The Use of Peridural of Saline Solution in Postspinal Headache.

HARWELL DABBS.

Severe postlumbar headache is a complication following spinal anesthesia. The incidence is around 20 per cent.

Present views on the physiologic factors and the evidence lends support to the primary cause of pain probably being a decrease in blood volume resulting in decreased pain-sensitive intracranial pressure.

As a result of this, the institution of peridural analgesia to produce a splinting "block" of the peridural space in the attempt to seal the subarachnoid space with a fibrin seal to occlude the leak.

Using both indwelling and non-indwelling peridural catheters and a needle, an initial dose of 10 to 20 c.c. of 0.5 per cent bupivacaine was injected into the space and then rechecked in 15 to 30 minutes. If present an additional 3 to 5 c.c. is left in place and on occasion additional injections are given if a more dramatic relief was obtained.

Two mechanisms are postulated for this procedure: compression of the peridural space and increase in arachnoid pressure, which is observed, and increased cessation of the flow of cerebrospinal fluid at the puncture sufficiently to allow the processes to occlude the

de concentrations in

with tetanus toxin.

JOSEPH K. NAKAI, M.D.

normal or low carbon-dioxide combining capacity as the latter tend to be due to the retention of carbon dioxide-combining capacities are indicated.

LEY W. TUELL, M.D.

TREATMENT OF INFECTIONS

Reference to Toxoid
SEN. *Acta med. scand.*,

cases of clinical tetanus given at the Blegdam previous 7.5 years. In wounds were so insignificant little attention to treatment with which had been given previously of repeated doses of lesions is emphasized. ulcers. The author previously immunized by dose of toxoid simulating 3,000 units of tetanus likely to be contaminated followed by two or three intervals of 2 weeks and 18 months later. Patients treated with a similar

Ten of the patients diagnosis than tetanus. perforated gastric ulcer, shock, and hysteria. percent. The mortality short incubation period an 8 day incubation period S. C. DOUGLASS, M.D.

n Treatment of Tetanus
tetracycline-siero antitossico
LDO CIONI and GIUSEPPE
C, 63: 1037.

who were treated with a group of 7 was treated

Systemic Bacitracin in the Treatment of Progressive Bacterial Synergistic Gangrene. FRANK L. MELENEY, PHILIP SHAMBAUGH, and ROBERT S. MILLEN. *Ann. Surg.*, 1950, 131: 129.

Progressive bacterial synergistic gangrene which is caused by a microaerophilic nonhemolytic streptococcus associated with a hemolytic staphylococcus aureus was first demonstrated in 1926. It is comparatively rare. Careful anaerobic cultural methods are necessary to find the offending organisms.

During the second or third week of the disease it takes on certain unmistakable clinical aspects, with severe pain and tenderness and a characteristic gross appearance. Centrally, there is a shaggy granulating ulcer surrounded by a "suede leather" gangrenous zone, a raised purple zone, and an outer erythematous zone.

The disease often starts about retention sutures in a wound following drainage of an empyema or peritoneal abscess, or about a colostomy or ileostomy, but it need not be postoperative.

Until 1945, nothing except wide surgical excision could bring this infection under control. Sulfonamides are ineffective, and penicillin, although frequently curative, fails with penicillin-resistant organisms or in the presence of secondary contaminants capable of producing penicillinase.

The present article records 5 typical cases of progressive bacterial synergistic gangrene, 4 of which failed to respond to penicillin but all of which yielded promptly to the systemic administration of bacitracin.

In Case 1, which occurred postoperatively, systemic administration of bacitracin brought the infection under control after the failure of penicillin, streptomycin, and sulfadiazine in large doses over a period of 4 months.

In Case 2 there was prompt response to systemic administration of bacitracin in an infection beginning in an abrasive wound, in which penicillin, streptomycin, and sulfadiazine had failed.

In Case 3 there was contamination of the lesions of mycosis fungoides, which responded promptly to bacitracin after other treatment had failed. There were some transient side effects of nephrotoxicity.

In Case 4 the gangrene developed around an ileostomy for ulcerative colitis with two simultaneous

The improved results are believed to be due to the use of small tubes, earlier removal of all tubes, the use of antihistotics, of the Foley bag, and of oxycel gauze for hemostasis, routine transfusions, and early ambulation.

Analysis of Results of Prostatic Surgery in 866 Cases. GEORGE BURKLEY and JOHN W. KEARNS.

J. Urol., Balt., 1952, 68: 724.

During an 8 year period, 142 patients underwent suprapubic prostatectomy and 632 were treated with 724 transurethral prostatic resections. Mortality in the suprapubic group was 8.5 per cent, while in the transurethral series only 1.4 per cent died. A high percentage of patients in both clinical groups had associated lesions in other systems as well as additional types of genitourinary abnormalities. These are enumerated in detail.

The complications after each type of operation are listed and discussed briefly. The most serious complications in both groups occurred in the cardiovascular system.

Patients in whom urinary extravasation was recognized and treated promptly had rapid and uneventful recovery.

The initial transurethral resection was incomplete in 58 patients. Any patient who is not urinating freely or completely is re-examined with the resectoscope and residual tissue is removed 1 week after the first procedure.

The authors recommend routine vasectomy to avoid epididymitis and adequate meatotomy to prevent postoperative strictures at the meatus.

ORMOND S. CURP, M.D.

Disturbances in the Descent of the Testicle (Ueber Störungen im Descensus des Hodens). WALTER DICK.

Deut. med. Wschr., 1952, 77: 1112.

The author discusses the mechanism of the physiologic descent of the testicles and the different forms of disturbances in this process.

Very interesting animal experiments have shown that an intra-abdominal or inguinal testicle is not able to produce viable spermatozoa. When the testicle was transferred into the abdominal cavity spermatogenesis came to a stop, because of degeneration of the germinal epithelium. The process is reversible. When, in the same animal, the testicle was brought back into the scrotum, spermatogenesis was restored. The reason is that the higher tem-

themselves in increased physiologic.

K. SWERSIE, M.D.

by two series of patients were submitted to urologic residents 13 gross in this short period is the same.

removal of these produced and tied prostatic bed, and

bladder was irrigated with a 30 c.c. solution after filled with sterile

the Foley catheter, emptied by suction, hemostat, drawn over the symphysis

then enucleated by interpressure was a sponge on a long

atic cavity to connect was inspected. suture through all

and Pezzet catheter drain is placed in Only such traction

may be necessary to control of the bleeding. No c.c. volume. No

a thermophore was applied to the scrotum. As the author puts it, the scrotum serves as a "cooling unit" for the testicle. This applies to spermatogenesis only; the secretory function of the testicle, which is ascribed to the interstitial cells, is not influenced by its location in the abdominal cavity. Therefore, a man with bilateral cryptorchism may develop all the secondary sex characteristics, including potentia coeundi, but is sterile because of aspermatogenesis. From these observations, it follows that treatment of intra-abdominal or inguinal testicle before puberty is imperative to ensure fertility. A further reason is the danger of malignant degeneration. The chances that a carcinoma will develop in a dystopic testicle are one-hundred times higher than in a testicle in normal position.

The causes for failure of descent may be either mechanical or hormonal. Very little is known about what causes the testicle to descend in the eighth month of embryonal life; however, it is assumed that the descensus is controlled by the gonadotropic hormone of the anterior pituitary lobe. We know that the testicle is dormant during the first 11 years of life; the testicle of the eleven-year-old boy has the same size as that of a boy one year old. Therefore, hormonal treatment with gonadotropic hormone should be started at the age of 11 only; if, before that time, an inguinal testicle causes discomfort or pain it should be corrected surgically. Five hundred units of gonadotropic hormone are given twice weekly for a period of 6 to 8 weeks; if by this time the testicle has not descended, surgery is indicated. Therapy with testicle hormone is contraindicated. This hormonal therapy should be applied especially in bilateral cryptorchism; if the cryptorchism is unilateral the failure of descent is probably due to a mechanical obstacle.

Surgical correction should be done shortly before the onset of puberty. The author recommends transfer of the testicle into a recess between the tunica dartos and the dermis of the scrotum. The testicle is passed through a gap in the tunica dartos and is held in place as a button.

If the retention is unilateral and it is impossible to bring the testicle down into the scrotum because of shortness of the vessels, then it is preferable to extirpate an atrophic testicle rather than to leave it in place and risk carcinomatous degeneration. In adult age an undescended testicle should be extirpated if the other one is normal because no spermatogenesis can be expected at this time, and spermatogenesis is normal because no

form of fixation, physiological, he the cord as high, lower pole of the midline where the following the various the incision. Even for all cases during he has been given At first the midline then the Pfannen-rectal was used. incision is made the instances of rectally as high a The second g author's method is that of shorte spermatic cord. The first method ectopias and other cord seems long the scrotum, after fun consists essentially out of the abdomi vessels and then cutaneous route. The second me the spermatic cor forms of intra-abd is deemed too sho carried down acro sion. The so-called with that used b By this techniqu anterior perineal urogenital triangle blunt dissection to the bladder. following funiculoT neath the pubic a of the perineum, 2 cm. beneath the incised and a for ward and laterally the scrotum. With reference believes that his and the enthusias

recovery was 147 ml. with a range of from 125 to 170 ml. Within the error of the method these variations cannot be considered significant.

In the other case, in which a precise estimate of the volume change was possible, 100 per cent of the introduced fluid was recovered. In the experiments in which 150 ml. of water were introduced, however, it was seen that at the end of 3 hours the bulk of the water had been absorbed.

In 5 experiments with urine introduced at acid pH between 4.9 and 5.4 there was a striking change to an alkaline reaction (pH 7.2 to 7.6) despite the known powerful buffering properties of urine.

The authors conclude that in all the experiments with urine there was an absorption of chloride in large excess of that of sodium. In 1 experiment there was no appreciable change in the potassium concentrations. In 2 experiments the concentration rose from 21 to 24 mEq. and from 33 to 44 mEq., respectively. The bicarbonate content of the acid urine instilled was not more than 1 mEq. per liter. The fluids withdrawn contained 27 and 8 mEq. per liter. Ammonia, estimated in only 2 of the experiments, showed the following: conflicting results in the concentration changes. In the first experiment there was an increase of 32 mgm. per 100 ml., and in the second a decrease of 61 mgm. per 100 ml.

Information as to urea concentration showed a striking decrease in concentration, in 1 experiment from 1,700 to 400 mgm. per 100 ml. and in the other from 2,400 to 1,200 mgm. per 100 ml. The uric acid showed no appreciable change in concentration.

In summarizing their work the authors state that changes in the constituents of the urine in saline solutions instilled in these segments of bowel showed a greater absorption of chloride than of sodium, and changes in these and other constituents.

The authors suggest that the reader review an article by J. Lapidus for an illuminating experiment (*Surg. Gyn. Obst.*, 1951, 93: 691).

PAUL R. LEBERMAN, M.D.

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T. BRENNAN, M.D.

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M. K. ALEXANDER.

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SURGERY OF THE BONES, JOINTS, MUSCLES, TENDONS, ETC.

CONDITIONS OF THE BONES, JOINTS,

MUSCLES, TENDONS, ETC.

Neck and Shoulder Pain Syndromes. Louis G. HOWARD. *Med. Clin. N. America*, 1952, 36: 1289.

The authors review the more common causes of neck and shoulder pain, as well as their diagnosis and treatment. Anatomically, the seven cervical vertebrae are maintained in mobile relation with one another by ligaments and by muscles from the cervical spine to the shoulder girdle, from the skull to the cervical spine and from the skull to the shoulder girdle. There is no intervertebral disc between the skull and C 1 or between C 1 and 2. However, nerve roots come out of all lateral intervertebral foramina and between C 1 and the skull. Usually the brachial plexus comprises the nerve roots of C 5 to T 1, inclusive. Lesions in the shoulder may refer pain to the neck. Lesions in the neck may refer pain to the shoulder, and pathologic conditions in either area may institute purely local pain.

Tumors within the cervical spinal canal result in pain of a segmental distribution. Tumors or disease within the spinal cord itself may produce bizarre symptoms which, however, are also segmental in distribution. A tumor in the lower half of the cervical spine may produce a brachial neuritis with reference of the pain to the base of the neck, out over the shoulder, or down the arm and forearm to the hand and fingers. Muscular atrophy may be present. Muscular fibrillation frequently is found. Reflex changes are common and pain reflexes are common and often confusing. A careful history, a painstaking neurological examination, and a tomographic myelography will almost always determine the presence of a cord tumor.

Degeneration of an intervertebral disc in the cervical spine is common and occurs most frequently in the lower half. Disc degeneration and subsequent vertical thinning permit nerve root pressure which may cause local neck pain. However, the pain may be referred segmentally to the shoulder and arm or to the interscapular area. Pain may be increased by downward vertical pressure upon the skull; therefore head traction gives great relief and is a major aid in the treatment as well as in the diagnosis. Cancer of the cervical spine may cause death if high enough to interfere with respiration. In the

The problem of as from the standpoint of disorders of the side ways: (1) from direct lesions of the brachial plexus, and (3) from the shoulder. Attention has been given to the involved in the profuse obscure conditions of all Fibrosis may be in the rhomboids, giving rise to the muscles while which reproduces the feel indurated. Tumor "solution into blood" relief. Several zones but repeated injections of a few dilute salicylic acid should be frequently found to be chopathic features of two factors, one of the former may occur in patient or relatives. The following factors in the causation of the shoulder in lesions within the brachial cord tumor, or adhesive spinal arachnoiditis, (2) vertebral zoster; (3) the cord or nerve root; (4) osteoarthritis, tuberculous or secondary) of the brachial plexus lesions.

The Diagnosis and Treatment of Scapulocostal Syndrome. A. S. RUSSEK. *J. Am. Med. Ass.*, 1952,

150: 25.

In the early symptoms of this syndrome, shoulder and scapular pain are prominent. When well established, the radiation zones become the painful areas and shoulder pain may be minimal or absent. The radiation apparently is of reflex nature on a cord segmental basis, depending on the level of the peripheral stimulus. The stimuli may originate either in the extremely sensitive tissues beneath the scapula or in the suspending muscles of the scapula in spasm.

The syndrome can be of primary, secondary, or static type. The primary type occurs in middle age (35 to 60) among those whose posture has deteriorated. The condition may be due to habitual slouch, allowing the shoulders to roll forward and the scapulae to slide laterally, or to poor occupational sitting habits often seen among physicians, typists, chauffeurs, and machine operators. The poor fit of the retracted scapula in its new position against the changing angle of the ribs, for a prolonged period, is responsible for setting up the pattern of symptoms. These are the patients who can voluntarily correct their faulty posture. Fatigue is a very prominent factor in these cases. Most patients with the primary type of this syndrome have no pain in the morning, the symptoms becoming progressively worse toward the end of the day's work. Some patients, however, have the greatest amount of pain in the morning and they improve through the day. These are the patients whose bed posture is improper. Those who use high pillows, allowing the shoulders to sag and the head to be drawn to one side, fall into this group.

The treatment is briefly outlined with emphasis on the elimination of the altered scapulothoracic relationship by physical or mechanical means after injection of the trigger points. A representative case history of each form is presented.

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Chronic Sclerosing Perisynevitits of the Dorsum of the Hand. G. MCKENZIE. *Austral. N. Zealand J. Surg.*, 1952, 22: 70.

The degree of disability which may follow an apparently minor injury to the hand is well known. Frequently trauma, which would not be described as severe, is followed by a long period of incapacity, and in some cases by enough permanent impairment of function to make a change of occupation necessary.

lesser extent, and arising therefrom fracture will reveal the content of the the impairment of rography will dem-

trophic type may be due to tubercu- mon cause. The rentiate from that a central or, more the disc. In the local nerve roots ing due to com- site of protrusion sixth and seventh

vertebral disc pro- strable wasting of triceps, and some be demonstrated. he pain in this case oots by the osteo-

esthesia is usually of the menopause. ant tingling sensa- affecting the hand the upper part of be bilateral, but ral. In these uni- y affected in right- changes may also a by exercises de- the shoulder girdle ation therapy to The carrying of ent should be for-

syndrome," three painful disability either a sudden or swelling and stiff- the second phase, the onset of the first

mechanical one. There is much to suggest that extravasation of blood is a factor but it cannot be the only one. In most cases a hematoma resolves. It may, in certain circumstances, become organized and form fibrous tissue; in other circumstances it may form a cyst. There may be an associated circulatory disturbance, particularly in tissues subject to movement.

A special group of these conditions is illustrated by 3 cases in which a comparatively slight injury to the dorsum has resulted in several months of disability. In 2 of them permanent impairment of function seems probable. A fourth case is added because of the similarity in pathology, although disability in this case has been minimal.

The prognosis is poor in that persistence or recurrence of the condition is often seen.

Excision of the fibrous tissue was followed by some evidence of recurrence in 2 cases of the 4. They were the 2 cases in which the dissection was most extensive. In a subject in whom organization of a hematoma has occurred following an injury it is only to be expected that organization may occur in any extravasation of blood following excision. If excision is to be carried out, every attempt should be made to reduce the amount of extravasated blood present in the tissues after operation. This requires dissection without a tourniquet so that all severed vessels may be secured, and the application of a pressure dressing.

SURGERY OF THE BONES, JOINTS, MUSCLES, TENDONS, ETC.

Surgical Treatment of Defects of the Long Bones.
IVAR PALMER, *Acta chir. scand.*, 1952, 103: 381.

Pseudarthrosis is usually treated by bone grafting of one kind or another. The operation has a twofold purpose: to bring about fixation and to reanimate and maintain osteogenesis until consolidation with incorporation of the graft has been achieved. In cases of nonunion of fractures, it is essential to differentiate between delayed healing and manifest pseudarthrosis. It is also necessary to distinguish between the different forms of pseudarthrosis. There is the firm pseudarthrosis, in which the fragments are joined by stiff fibrous tissue permitting only the minimum of mobility, and there is the mobile pseudarthrosis in which the fragments are separated by a real joint cavity containing mucous, synovial-like fluid and in which the whole is surrounded by a fibrous capsule. Finally there is the de-

vide satisfactory position. Live, bright picture. The addition of the experience indicates the picture.

most as good if not an autotransplant, what we might call an autotransplant. Such conditions as arthritis, in arthrodectomies, in the spine, Conditions are united, a true defect is to be an osteogenic for-

formed on relative lines. In all the cases, Medullary nailing technique. External shaped Kuntzschner, The author concludes utilizing various of medullary fixations, published by a triple nail for fixation, structural design, In osteogenesis. The re-

to absorption of the infection at the defect in the humerus. During the course had occasion to operate in the middle, the patient suffered operations, in which He was hospitalized, were utilized, had a minimum of mobility, and there is the mobile pseudarthrosis in which the fragments are separated by a real joint cavity containing mucous, synovial-like fluid and in which the whole is surrounded by a fibrous capsule. Finally there is the de-

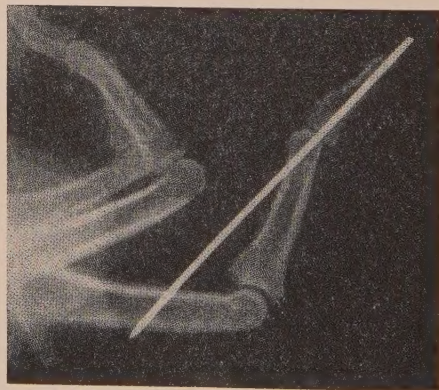


Fig. 1 (Peacock). The internal splint immobilizing the finger in the desired position.

gail in the tibia is of doubtful value; here one should give preference to a graft fastened with screws, to a sliding bone graft or, eventually, to a metallic plate. It is the author's impression that more satisfactory results with the Kuntscher nail will be achieved if the surgeon provides plenty of osteoformative bone substance (bone chips, grafting) at the point of

pseudarthrosis. The metallic plate is most frequently used on the

The metallic plate is most frequently used on the humerus, tibia, and cubitus; however, for the subperiosteal resections of the tibia for osteomyelitis, only the autogenous graft or autoplastic fixations can offer good results—with abundant supplementation of bone substance, careful local protection, and the aid of the antibiotics. Likewise, in congenital pseudarthroses, where some form of vascular insufficiency is suspected, only the abundant supplementation of osteoformative bone substance, perhaps aided by a centromedullary (nail of Dehliata) or exomedullary (Lane plate) form of metallic bracing, will give prospects of cure. Here, however, success is quite frequently attained and it is a "far cry" from the day when many surgeons advised amputation in the presence of a congenital pseudarthrosis.

JOHN W. BRENNAN, M.D.

Dynamic Splinting for the Prevention and Correction of Hand Deformities. A Simple and Inexpensive Method. ERLE E. PEACOCK, JR.

J. Bone Surg., 1952, 34-A: 785.

J. Bone Surg., 1952, 34-A: 785.

Drop-finger at the distal joint or mallet finger from injury is due to a tendon rupture at the insertion of



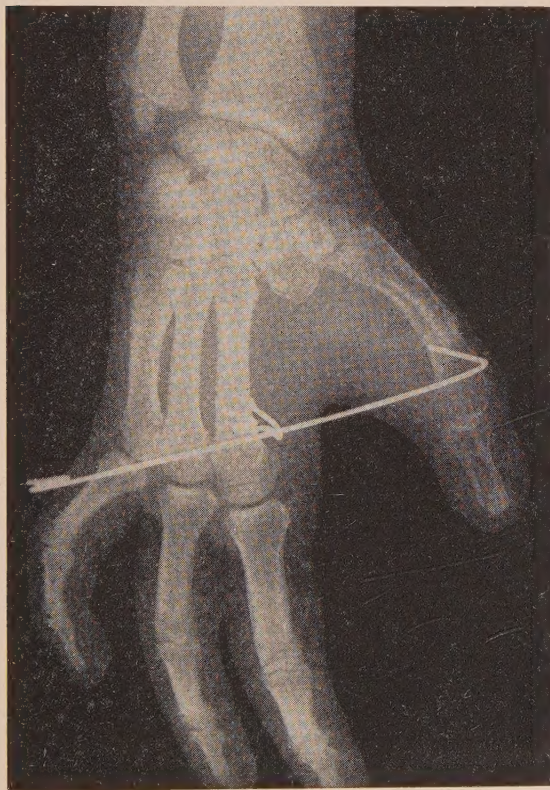


Fig. 2 (Littler). Showing the union of the index metacarpophalangeal segment and a special intermetacarpal Kirschner wire distraction splint in position.

bone chips cut from the anterior part of the iliac crest are employed to fill the remaining space of the acetabulum. After closure of the wound a double plaster hip spica is applied with the limb still in

the intrinsic muscles of the proximal phalanx, which is not the intrinsic flexors and flexor of the thumb and finger joint hyperextends the pollicis longus

I well illustrated. trovascular pedicle.

GOERINGER, M.D.

W. H. KIRKALDY.
Bone Surg., 1952,

experience with abduction of the hip which, of the hip which, in immo-operations, in cases; femur have been up not responding treatment, and in

hip. ough an anterior head, or head and ceased bone, and moved. With the tissue is removed or trochanter are to 45 degrees and

